REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 9-18 are now in the application. Claims 9, 14, and 16 have been amended.

The amendment to the independent claims assures that the binder consists only of Co, Fe, and/or Ni. No other alloying metals are allowed in the binder (except for non-effective impurities, of course) according to the claims. Support for the claimed features is found in the specification, which clearly describes the limitations placed on the binder metal.

The specification further describes that the tungsten carbide component may be present, in essence, together with an allowable amount of other hard materials. For example, other carbides may be present in a range of up to approximately 10% by weight. Reference is had, for example, to the paragraph bridging pages 2 and 3.

In sum, claim 9 defines a component that is optimized with regard to torsion resistance and wear resistance and which consists of WC (with up to 10% of another/other hard metals) and 13-23 wt.% of a binder. The binder consists of Co, Fe, and/or Ni. According to the claim, the binder cannot have any other effective amount of binder metal.

The same is true for the other independent claims. Claim 14 defines a method in which are screwdriver bit is produced with the alloy of claim 9. Claim 16 defines a

screwdriver bit formed of an alloy according to claim 9. All of the dependent claims include these limitations by way of their dependencies.

This brings us to the art rejection, in which claims 9, 12, 13, 16, and 18 were rejected as being anticipated by JP 10-296650 ("JP '650) under 35 U.S.C. § 102(b). We respectfully traverse.

As we do not read Japanese, and the English language abstract appeared slightly confusing, we had a translation prepared of the apparently pertinent portions of the reference. The translation of paragraphs [0006] – [0013] of JP '650 is enclosed herewith.

Unfortunately, even the translation is slightly ambiguous. There is stated in the reference that:

> The WC particles of cemented carbide . . . are dispersed in Co, Ni or Cr which constitute a binder.

JP '650, English translation, para. [0007]. While this portion of the text appears to suggest that the binder be selected from any of these metals, it becomes clear from the following description that the binder consists of all three. The binder of Co, Ni, Cr is discussed several more times as a mixture. That is, the alternative expression "or" only appears once and the remaining disclosure strongly suggests that the components of the binder are all necessarily present.

This, of course, is the important issue before us. If the Japanese disclosure requires chromium as a necessary component in its binder composition, then the rejection under 35 U.S.C. § 102 is not warranted. We believe that this is the case.

The JP reference represents an approach to the achieving good wear resistance and good torsion resistance which may be characterized as utilizing high binder content with a strongly hardened binder. The approach followed by the instantly claimed invention is to utilize very small grain hard metal (WC) in connection with a high binder content, albeit not so strongly hardened.

The more strongly hardened binder of JP '650 utilizes chromium. Chromium is a well known and popular binder metal, which lends itself superbly to the formation of mixed crystal hardening in the binder and a reduction in the ductility of the alloy. The increase in hardness caused by the Cr addition leads to better hardness of the alloy, but reduced torsion resistance. As explained previously, those of ordinary skill in the art would tend to use harder metals (with a view to wear resistance) and more ductile metals (with a view to the torsional resistance) for the objects at hand. See, for example, page 2, line 26-32, of the specification.

With regard to the particle size of the WC, the reference uses particles of up to 5 µm, while the claimed range is capped at 1.2 µm. While there does exist an overlap, it should be noted that the same occupies only a rather small portion of the range.

Finally, we are not certain why Fig. 2 of JP '650 mentions a binder of Co+Ni+Ti+Ta, when the specification clearly and unambiguously details Co+Ni+Cr as its binder metals. We consider Fig. 2 to be in error.

Claims 9 and 16 are not anticipated by JP '650. In light of the fact that the reference requires Cr in its binder, while the same is expressly excluded as a binder component in an effective amount by the claims, the claims are also not obvious over the Japanese reference.

With regard to the rejection of claims 14-15 and 17, the secondary reference Holland-Letz cannot make up for the shortcomings of the primary reference JP '650. Holland-Letz was cited to show the injection molding and the machining of a plurality of elevations on the screwdriver bit. The secondary teaching is acknowledged. It does not provide a teaching towards or a modification of the binder of the primary reference. The combined teachings, therefore, would still not lead to an alloy with a Cr-less binder, as claimed.

In view of the foregoing, reconsideration and allowance of claims 12-18 are solicited.

/Werner H. Stemer/

Reg. No. 34,956
Werner H. Stemer

January 19, 2007
Lerner Greenberg Stemer LLP
P.O. Box 2480
Hollywood, Florida 33022-2480
Tel.: 954·925·1100
Fax: 954·925·1101